REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 3, 4, 7, 10-13, 15-17, 31, and 63 are presently active; Claim 3 has been presently amended, and Claim 14 has been presently canceled without prejudice.

In the outstanding Office Action, Claims 3, 4, 7, 10-17, 31, and 63 were rejected under 35 U.S.C. § 102(e) as being anticipated or in the alternative as being unpatentable under 35 U.S.C. § 103 in view of Nakamura (U.S. Pat. No. 6,291,763) in view of Priddy (U.S. Pat. No. 4,288,379), Klein (U.S. Pat. No. 4,710,520) and Hawley's Condensed Chemical Dictionary, 12th Edition (1993), pp. 409, 853, and 1180, hereinafter referred to as Hawley. Claims 3, 4, 7, 10-17, 31, and 63 were rejected under 35 U.S.C. § 102(e) as being anticipated by, or in the alternative as being unpatentable under 35 U.S.C. § 103 in view of Ono (U.S. Pat. No. 6,495,067). Claims 3, 4, 7, 10-17, 31, and 63 were rejected under 35 U.S.C. § 103 as being unpatentable in view of Nakamura in view of Ohno (U.S. Pat. No. 6,025,457) and in view of Fahrenbauch et al (Fundamentals of Solar Cells, Photovoltaic Solar Energy Conversion, Academic Press, NY (1983), page 234). Claims 3, 4, 7, 10-14, and 31 were rejected under the judicially created doctrine of obviousness-type double patenting over Claims 1-19 in U.S. Pat. No. 6,700,058. Claims 15-17 and 63 were rejected under the judicially created doctrine of obviousness-type double patenting over Claims 1-19 in U.S. Pat. No. 6,700,058 in view of Nakamura.

Regarding the rejection on the merits, Claim 3 presently defines a photoelectric conversion device having a semiconductor and a polymeric electrically conducting agent, wherein the polymeric electrically conducting agent has a melting point temperature which is lower than the operation temperature of the photoelectric conversion device, and wherein the

polymeric electrically conducting agent has a glass transition temperature Tg, and wherein ***the polymeric electrically conducting agent is a hole transporting agent.***

Applicants respectfully submit that Nakamura does not disclose a polymeric electrically conducting agent (1) having a melting point temperature lower than the operation temperature of the photoelectric conversion device, (2) having a glass transition temperature Tg, and (3) being a hole transporting agent.

In the outstanding Office Action, the Office Action asserted that the molten salts of Nakamura, Y19, Y20, Y26 ..., are hole transporters (see page 3, 5th line from the bottom of the Office Action dated September 30, 2005). However, since these molten salts are ionic in nature, i.e. the molten salts are ionic conductors, by definition, such materials do not provide free electrons or holes, as would be required by the term "hole transporter," used in the Office Action. Accordingly, these molten salts are ***not*** hole transporting agents, as defined in independent Claim 3.

Indeed, the outstanding Office Action on page 14 takes a position that "the redox couple provides for hole transport." To this point Applicants respectfully traverse. Nakamura states that:

> The charge transporting material typically includes (1) ion transporting materials, such as ... a molten salt electrolyte containing ions of a redox system. (See column 15, line 63 - column 16, line 1.).

In other words, the molten salt electrolytes disclosed in Nakamura containing ions of a redox couple are ion transporters. The molten salt electrolytes disclosed in Nakamura are ***not*** hole transporters. Holes in the semiconductor materials of Nakamura would, on upon arrival at the surfaces of the semiconductor materials, accept electrons from the redox system of the molten salt electrolytes, and recombine eliminating the holes. While charge would be transported in the molten salt electrolyte to make up for the electrons used for hole recombination on the surface of the semiconductor materials exposed to the redox system,

charge transport in the molten salt electrolyte is not hole transport, as there are no holes present in the molten salt electrolyte. Thus, whenever Nakamura discloses an electrolyte, such as a redox couple, such term implies ionic-type transport and ***not*** hole transport. Indeed, Nakamura contrasts such ionic type conduction to transport in solid conductor mechanisms by stating that:

> The charge transporting material typically includes ... (2) solid materials in which carriers move to take part in electric conduction, such as electron transporting materials and hole transporting materials. (See column 16, lines 2 – 5.)

Hence, the molten salts of Nakamura are ***not*** hole transporters, as asserted in the Office Action, and thus are not hole transporting agents, as defined in Claim 3.

Furthermore, while Nakamura disclose at columns 27-28 the use of organic and/or inorganic hole transporting materials in place of the electrolytes, there is no disclosure in Nakamura that these organic and/or inorganic hole transporting materials have a melting point temperature which is lower than the operation temperature of the photoelectric conversion devices disclosed in Nakamura, as defined in Claim 3

M.P.E.P. § 2131 requires for anticipation that each and every feature of the claimed invention must be shown and requires for anticipation that the identical invention must be shown in as complete detail as is contained in the claim. M.P.E.P. § 2143 requires for a *prima facie* case of obviousness that the prior art reference (or references when combined) must teach or suggest all the claim limitations. Accordingly, Applicants submit that Nakamura does not anticipate or make obvious Claim 3.

Furthermore, Applicants submit that the deficiencies in Nakamura are not overcome by the other cited references in the Office Action.

For instance, Ono was cited in the outstanding Office Action as anticipating the subject matter of the present invention. Again, however, Applicants respectfully point out

that the charge transporting materials disclosed in Ono to which the Office Action refers to as ionic electrolytes and therefore are ***not*** hole transporters. Applicants submit that this characterization of the ionic electrolytes in Ono especially applies to the (IA) compounds listed in columns 27 - 32 of Ono. Therefore, Ono does not anticipate or make obvious ,when combined with Nakamura, the subject matter of Claim 3.

Ohno et al (US 6,025,457) was cited in the outstanding Office Action as rendering obvious the present invention when combined with Nakamura. However, an inspection of Ohno et al shows that Ohno et al only disclose molten-salt polyelectrolytes which show high ionic conductivity at room temperature. (See abstract, column 1, line 45, column 8, line 17 of Ohno et al). Consequently, even if Nakamura were combined with Ohno et al, such a combination would not have all the features of Claim 3.

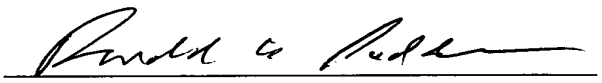
Hence, for all the above-noted reasons, independent Claim 3 and the claims dependent therefrom are believed to patentably define over the cited references in the outstanding Office Action.

Regarding the double patenting rejections, a terminal disclaimer can be filed, if the claims in the present application remain obvious in view of the claims of the two cited U.S. patents at the time of allowance of the present application. Further amendments (if needed for allowance of these claims) may eliminate the double-patenting rejection, making the filing of a Terminal Disclaimer at this time premature. Indeed, M.P.E.P. § 804.02 IV states that, prior to issuance, it is necessary to disclaim each one of the double patenting references applied. Hence, Applicants respectfully request that the examiner contact the undersigned should the present amendments and arguments be accepted and should the present application be otherwise in a condition for allowance. At that time, a terminal disclaimer if warranted can be supplied to expedite issuance of this case.

Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Ronald A. Rudder, Ph. D.
Registration No. 45,618

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

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